

REMARKS

Applicant's counsel thanks the Examiner for the careful consideration given the application. Herein, independent claim 17 has been amended. The addition of the features "in a three-dimensional manner" and "three-dimensionally shaped surface" to claim 17 further specifies the shape of the claimed article. Basis for the amendments to claim 17 can be found on page 2, lines 22 and 24 of the present application. No new matter has been added.

Claim Rejections - 35 USC § 102 and 103

Claims 17-19, 21-25, 29-31, 33 and 36-38 are rejected as being anticipated by, or in the alternative, as obvious over Ferrar et al. (US 5,578,370). Claim 17 is the only pending independent claim.

A first difference between the method of claim 17 and Ferrar et al. (US 5,578,330) is that amended claim 17 recites that a tape, film or yarn is attached to at least one three-dimensionally shaped surface of the article. The mutually intersecting tapes in the mat of Ferrar et al. do not have a three-dimensionally shaped surface prior to the fusing with another tape. A mat with a three-dimensional form may only be obtained after a heating procedure in a mold or former (column 3, lines 10-12). Thus, Ferrar et al. does not disclose a shaped three-dimensional article as claimed.

A second difference follows from the feature of claim 17 that the claimed tape, film or yarn is attached to a three-dimensionally shaped surface of the article. This is conceptually different from Ferrar et al., because there it is described that the surface layer of a first tape is fused together with the surface layer of a second tape of the same kind, wherein the tapes belong either to the same mat (column 3 lines 5-9) or to different mats (column 3 line 14). It appears that the Examiner considers that the first tape is the "article" of claim 17, and the second tape is the "tape" of claim 17 (page 3, lines 1 and 2 of the Office action). Ferrar et al. describes a method for preparing a mat by fusing together mutually intersecting elongate elements of a composite material (column 3, lines 4-5), and that it does not describe a method for reinforcing an article by treating its (three-dimensional) surface, as in the method of claim 17. For example, the present application compares reinforced articles with articles that have not been reinforced (e.g. the table on page 19). Such a comparison does not seem to make sense in Ferrar et al. in that for

assessing the properties of the material, the fusion process at an intersection between two tapes cannot be isolated from the totality of the mat.

As explained above, tapes in a mat of Ferrar et al. do not have a three-dimensionally shaped surface prior to the fusing with another tape. Neither does Ferrar et al. teach or suggest that the reinforcing effect of the invention may be obtained by attaching a tape, film or yarn to a three-dimensionally shaped surface of an article, let alone a method to realize this. In this regard, the skilled person who wants to reinforce the three-dimensionally shaped surface of an article would therefore not consider Ferrar et al.

Further, Ferrar et al. teaches the fusing of intersections of elongate elements in a mat, and not the reinforcement of a three-dimensionally shaped article as claimed. The skilled person who takes notice of Ferrar et al. would therefore not be motivated to apply the described fusion of elements to reinforce a pre-formed surface of a three-dimensionally shaped article. Moreover, even if one skilled in the art would do so, that person would not arrive at the claimed method because the tape to be fused does not have a three-dimensionally shaped surface. As amended, the applicant respectfully submits that claim 17 defines over the Ferrar et al. reference.

Claim Rejections - 35 USC 103

Claims 26, 27 and 39 are rejected as being unpatentable over Ferrar in view of Cudney et al. (US 5,465,424). As pointed out in the present Office action, Ferrar et al. is silent as to applying a covering layer and a layer of foam to the reinforced article. The Examiner cites Cudney to teach a ballistic article having a reinforced tape article wherein applied to the reinforced tape article is a layer of foam and applied to the layer of foam is a covering layer. The applicant respectfully submits that Cudney does not teach a ballistic article having a reinforced tape having a foam layer and covering layer. As shown in Fig. 14 of Cudney, a layer of flexible fabric 120 is covered with foam, which has ballistic tape 122 and a flexible web 121 covered thereover (covering layer). Like Ferrar et al., Cudney does not show a reinforced three-dimensional article, but rather an unreinforced flexible fabric layer. The flexible layer of Cudney is not shaped in a three-dimensional manner as claimed, nor does Cudney motivate one skilled in the art to add a layer of foam and a covering layer to a reinforced article, which lack of motivation also is present in Ferrar et al. Moreover, the flexible fabric to which the foam and covering layer are applied is

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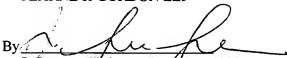
not reinforced as claimed. The protective vest as described in Cudney et al. has shock absorbing properties, but it is not mentioned that it is reinforced, let alone that a method to realize such properties is described and as such the skilled person would not be tempted to include in Ferrar et al. a covering layer and a layer of foam to obtain a reinforced article.. Accordingly, the applicant submits that the combination of Cudney and Ferrar does not render claims 26, 27 and 39 obvious.

Claims 28 and 40 are rejected as being unpatentable over Ferrar in view of Cudney et al. (US 5,465,424), and further in view of Hallal et al. (US 4,868,040). Hallal et al. is only being cited to teach that flexible fabrics can include polyethylene fabric. Thus, for at least the reasons above, it is submitted that Hallal also fails to teach the claimed elements. In view of the amendments and the remarks, it is believed that the case is now in condition for allowance, which is respectfully requested.

If any additional fees are required by this communication, please charge such fees to our Deposit Account No. 16-0820, Order No. VOB-38027.

Respectfully submitted,
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